

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re ANADARKO PETROLEUM
CORPORATION SECURITIES
LITIGATION

§ Civil Action No. 4:20-cv-00576
§
§ CLASS ACTION
§
The Honorable Charles R. Eskridge III

**PLAINTIFFS' MOTION TO EXCLUDE CERTAIN TESTIMONY BY
DEFENDANTS' PROPOSED EXPERT DR. ROCCO DETOMO**

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I. INTRODUCTION

Defendants' proposed geoscientific expert, Dr. Rocco Detomo, proffered a 481-page rebuttal report in response to Plaintiffs' experts Dr. Merrill and Mr. Pittinger. Ex. A (Jan. 25, 2023 Expert Report of Dr. Rocco Detomo, Jr. ("Rebuttal Report")). For reasons set forth below, Plaintiffs move to exclude Detomo's opinions concerning: (1) whether Anadarko's statements and omissions were misleading; (2) whether post-Class-Period pitches by other companies demonstrate Shenandoah was commercial during the Class Period; (3) the merits of Anadarko's resource assessments and economic analyses; and (4) asphaltene deposition and mitigation at Shenandoah.

First, Detomo, a geophysicist, is unqualified as a disclosure expert. Detomo nevertheless opines that Anadarko's statements and omissions were not misleading, wading into forbidden waters of legal conclusions and juror fact-finding with no disclosure expertise to keep him afloat. Such testimony must be excluded.

Second, Detomo's opinion regarding post-Class-Period pitches by other companies in 2021 is irrelevant, particularly as Shenandoah has yet to produce any oil. Moreover, Detomo's testimony is based solely on public-facing documents designed to attract investors, not internal technical reviews. It is, therefore, based on insufficient facts and unreliable methodology. The risk of misleading the jury far outweighs any probative value.

Third, Detomo is not qualified to opine on engineering matters such as resource assessment, economics, or reservoir recovery factor. Detomo has spent his entire career as a geophysicist at Shell, and conflates his experience working with reservoir engineers to possessing the necessary training, education, and experience to opine as an expert in their

field. At best, Detomo deployed *Shell's* proprietary methods, not the MMRA method reservoir engineers used at *Anadarko*. Detomo did not analyze the underlying data, nor does he have a reliable conception of what the industry standard is outside of Shell. Much of his testimony is demonstrably plagued by error and inadmissible.

Fourth, Detomo admitted his experience in asphaltene mitigation does not rise to the level of expertise. Flow assurance and well interventions are a petroleum engineer's domain, not a geophysicist's. Moreover, Detomo's opinions lack factual basis and are unreliable because they ignore the options Anadarko considered during the Class Period. It is misleading for an expert to tell the jury a problem can be mitigated when the option was not on the table at the time. His opinions about asphaltene mitigation are inadmissible.

Finally, to the extent Dr. Detomo offers an opinion regarding the reasons for the write-off or Defendants' state of mind, that too is subject to exclusion. He is not an accounting expert, and it is impermissible for him to speculate about Defendants' state of mind, a question reserved for the jury.

II. NATURE AND STAGE OF THE LITIGATION

This securities fraud class action was filed February 19, 2020. ECF 1. The motions cut off is March 16, 2023. ECF 150 at 1. The final pretrial conference is set for September 19, 2023. *Id.* at 2.

III. FACTS NECESSARY TO RESOLUTION OF THE MOTION

Detomo's Rebuttal Report spans 481 pages in rebuttal to Plaintiffs' technical experts, Dr. Merrill and Mr. Pittinger. Ex. A; Ex. B (Mar. 9, 2023 Rocco Detomo, Jr., Ph.D. Deposition Transcript) at 25:4-26:20. Detomo is a geophysicist who spent his entire career

at Shell until he left to start a consulting company. Ex. A, App. 2. In a previous deposition and expert report in a patent case, Detomo self-described his expertise as a geophysicist who can interpret seismic data and model the subsurface. *See* Ex. C (Feb. 6, 2019 Expert Declaration of Dr. Rocco Detomo Ph.D., in *Seabed Geosolutions (US), Inc. v. Magseis FF LLC*, No. IPR2018-00962 (USPTO)), ¶28. His academic papers concern the same. *See* Ex. A, App. 3. Detomo is not a lawyer, a disclosure expert, or accounting expert. *See* Ex. A, App. 2; Ex. B at 109:16-110:7. No court has ever admitted Detomo’s testimony in a securities fraud case. *Id.* at 10:20-12:14.

IV. ISSUE FOR RESOLUTION

Whether Detomo’s testimony should be excluded under the Federal Rules of Evidence and *Daubert*.

V. LEGAL STANDARD

This motion cross-references the standard in Plaintiffs’ Motion to Exclude Defendants’ Expert Peter Keller, filed concurrently herewith.

VI. ARGUMENT

A. Detomo’s Opinions Regarding Falsity Should Be Excluded

Detomo opines Plaintiffs “have not shown that any statements were inaccurate or misleading,” and the alleged omissions here “are either commonly known uncertainties, such as the risk of faulting, or detailed technical disagreements that I would not expect to be disclosed.” Ex. A, ¶¶34, 1050; Ex. B at 109:16-22. These opinions should be excluded because (1) Detomo is not a qualified disclosure expert; (2) his conclusions are unreliable; and (3) they are legal conclusions that usurp the jury’s fact-finding role.

Detomo himself testified he is not a disclosure or securities law expert, and repeatedly confirmed he has no experience with SEC filings or understanding of company disclosure requirements. Ex. B at 109:16-110:7; 119:11-121:8. This alone disqualifies him. To the extent he opines about the write-off, the same rationale applies because he is not an accounting expert.

Second, Detomo misunderstands of the statements and omissions at issue. He could not state the allegations and struggled to identify any omissions during his deposition, even when given time to review his report. *Id.* at 107:1-118:25. Moreover, despite saying he is an “independent” expert, Detomo admitted that, while he agreed with Dr. Merrill or Mr. Pittinger on certain points, he only penned disagreements in his rebuttal report. *Id.* at 24:3-26:20. This is precisely the “hired gun” testimony *Daubert* guards against. *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997).

Finally, Detomo’s opinions usurp the jury’s fact-finding role and constitute legal conclusions. “Rule 704 ‘does not allow an expert to render conclusions of law’” and evidentiary rules guard “‘against the admission of opinions which would merely tell the jury what result to reach.’” *United States v. Thomas*, 847 F.3d 193, 206 (5th Cir. 2017); *Goodman v. Harris Cnty.*, 571 F.3d 388, 399 (5th Cir. 2009) (“an expert may never render conclusions of law”).¹ “A district court should be especially cautious . . .” where, as here, an “expert[] comment[s] upon the materiality or fraudulence of disputed misstatements in [a] securities fraud action[.]” *In re Stratosphere Corp. Sec. Litig.*, 66 F. Supp. 2d 1182, 1188

¹ Citations are omitted and emphasis is added unless otherwise stated.

(D. Nev. 1999). For this reason, courts exclude expert opinions about whether defendants' statements were "misleading." *See, e.g., In re Twitter, Inc. Secs. Litig.*, 2020 WL 9073168, at *9 (N.D. Cal. Apr. 20, 2020) (excluding testimony in securities-fraud case about whether Twitter's response to the SEC's comment letter was misleading as it "would usurp the role of the jury"); *United States v. Barile*, 286 F.3d 749, 761 (4th Cir. 2002) (affirming exclusion of expert testimony about phrase "materially misleading"); *Russ v. Safeco Ins. Co. of Am.*, 2013 WL 1310501, at *22 (S.D. Miss. Mar. 26, 2013) (whether statements were "misleading" "are for the jury to determine"); *Goode v. City of Southaven*, 2018 WL 4691330, at *5 (N.D. Miss. Sept. 27, 2018) (courts exclude expert testimony "using judicially defined or legally specialized terms"). The same is true of related state-of-mind testimony. *Robinson v. Ethicon, Inc.*, 2021 WL 5762720, at *4 (S.D. Tex. Dec. 3, 2021). All Detomo's "misleading" opinions must be excluded.

B. Detomo's Opinions About Current Operations at Shenandoah Are Irrelevant, Unreliable, and Risk Misleading the Jury

Detomo opines Shenandoah was commercially viable because other companies (Navitas and Beacon) decided in 2021 to develop it. Ex. A, ¶¶33, 66, 576, 1050; Ex. B at 30:18-31:5. Any reference to Shenandoah post-dating the Class Period is irrelevant, unreliable, and risks misleading the jury.

"To qualify as an expert, the witness's testimony must 'both rest[] on a reliable foundation and [be] relevant to the task at hand.'" *Pedraza v. Jones*, 71 F.3d 194, 197 (5th Cir. 1995) (alteration in original). "Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.'" *Moore v. Ashland Chem. Inc.*, 151 F.3d

269, 275 (5th Cir. 1998). Expert testimony that falls outside the relevant time period is routinely excluded. *See, e.g., Wade v. WellPoint, Inc.*, 892 F. Supp. 2d 1102, 1134 n.21 (S.D. Ind. 2012) (““post-class period events”” irrelevant because “they bear no relevance to Defendants’ knowledge at the time of the alleged misstatements and omissions”); *HsingChing Hsu v. Puma Biotech., Inc.*, No 8:15-cv-0865, ECF 614 at 5 (C.D. Cal. Oct. 24, 2018) (excluding “evidence of post-Class Period events, results, or outcomes”); *Johns v. Bayer Corp.*, 2013 WL 1498965, at *17 (S.D. Cal. Apr. 10, 2013) (finding post-class-period “evidence irrelevant to the determination of whether the scientific research available during the Class Period substantiated Bayer’s representations”); *Eagle Oil & Gas Co. v. Travelers Prop. Cas. Co. of Am.*, 2014 WL 3744976, at *6 (N.D. Tex. July 30, 2014) (expert testimony about 2014 regulations irrelevant because incident occurred in 2011); *Shu-Hui Wu v. Miss. State Univ.*, 626 F. App’x 535, 540 (5th Cir. 2015) (excluding expert testimony regarding statistical data outside the relevant period).

Subsequent efforts to develop Shenandoah have no relevance to what Anadarko knew yet failed to disclose about its commercial viability and producible resource size in 2015-2017. Even Detomo reluctantly acknowledged Shenandoah has yet to produce oil and is thus not commercial. Ex. B at 30:18-31:5; 132:9-24. Regardless, the fact-intensive inquiry into what allowed subsequent companies to succeed where Anadarko failed risks a significant detour unhelpful in answering whether Anadarko made misleading statements during the Class Period. Jurors would descend into a securities litigation fractal, examining not only Anadarko’s resource estimates, technical work, costs, and disclosures for fraud, but also those of third-parties Navitas and Beacon. This exercise is unhelpful because numerous

variables, such as technology and business models, preclude any clean conclusion about why Navitas chose to gamble on Shenandoah in 2021 when Anadarko wrote it off for zero compensation in 2017. Just because Netflix successfully evolved from a movie rental company to a streaming service does not mean Blockbuster knew it could do the same when it shuttered its doors. As the Seventh Circuit noted, “[f]raud depends on the state of events when a statement is made, not on what happens later.” *Schleicher v. Wendt*, 618 F.3d 679, 684 (7th Cir. 2010).

Detomo’s irrelevant testimony on Navitas’ gamble is also based on insufficient fact, and risks misleading the jury. *Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383, 388 (5th Cir. 2009) (“Where an expert’s opinion is based on insufficient information, the analysis is unreliable.”). Detomo reviewed only those companies’ public facing documents, which he agreed are designed to attract investment. Ex. B at 131:3-15. This reliance on public documents is particularly problematic given Detomo’s admitted ignorance of public disclosure rules on the NYSE, let alone the Tel Aviv stock exchange. *See id.* at 131:16-132:8. Detomo also fails to perform any special function as an expert in this review, as “it does not take any special competence . . . to read pertinent public documents . . . to determine whether certain risks were conveyed to the public.” *See Stratosphere*, 66 F. Supp. 2d at 1188 (citing *In re Apple Comp. Sec. Litig.*, 886 F.2d 1109, 1116 (9th Cir. 1989)).

Detomo has not reviewed any of Navitas’ or Beacon’s internal documents or underlying technical work to support his illogical leap. Ex. B at 131:9-15; 132:6-8. And one cannot extrapolate from public materials alone that these companies have a viable technical plan. *See Singleton v. Ben Bridge Jeweler, Inc.*, 2009 WL 3698440, at *3 (S.D. Tex. Jan. 27,

2009) (expert's testimony unhelpful because his interpretation of video footage was "incapable of scientific verification"). This testimony simply regurgitates Defendants' theory of the case and must be excluded. *See Joseph v. Signal Int'l L.L.C.*, 2015 WL 12766134, at *13 (E.D. Tex. Feb. 12, 2015) (expert report unhelpful because it read like an opening statement and regurgitated defendant's theory). The risk of misleading the jury far outweighs any probative value, especially because Detomo can instead examine assessments of Shenandoah's commerciality made *during* the relevant period.

C. Detomo Is Unqualified to Offer an Opinion on Shenandoah's Commerciality and Lacks a Reliable Methodology

To help the jury understand Shenandoah's commerciality, the experts in this case will explain resource assessments, probability weighting, and how costs are incorporated into Anadarko's MMRA analysis. Detomo is incapable of doing so as shown below.

1. Detomo Is Not Qualified to Opine on Shenandoah's Commerciality

"Before a district court may allow a witness to testify as an expert, it must be assured that the proffered witness is qualified to testify by virtue of his 'knowledge, skill, experience, training, or education.' Fed. R. Evid. 702. A district court should . . . [exclude expert testimony if] the witness is not qualified to testify in a particular field or on a given subject." *United States v. Cooks*, 589 F.3d 173, 179 (5th Cir. 2009).

Detomo is a geophysicist, not a petroleum engineer, and is not qualified to testify as an expert on commerciality. The subsurface is one corner of the puzzle the geophysicist is asked to solve using seismic; a petroleum engineer's expertise lies in another corner, production methods, resource assessment, economics, and hydrocarbon recovery. Exposure

on a multi-disciplinary team alone is not expertise, and Detomo is testifying outside his expertise as a geophysicist. *See Rushing v. Yeargain*, 2022 WL 4545612, at *8 (M.D. La. June 10, 2022) (although expert was qualified in general forensic psychiatry, workplace policies and procedures were beyond scope of expertise); *Right of Way Maint. Co. v. Gyro-Trac, Inc.*, 2007 WL 1428634, at *4 (S.D. Tex. May 11, 2007) (attorney with engineering degree could not “testify to engineering matters”); *Diamond Offshore Co. v. Survival Sys. Int’l, Inc.*, 2013 WL 371648, at *13 (S.D. Tex. Jan. 29, 2013) (proposed financial expert “unqualified” despite B.A. in economics, an MBA, and 20 years of relevant experience).

Here, the Society of Exploration Geophysicists (“SEG”), of which Detomo is a member, defines a geophysicist as follows:

[A] scientist that applies the principles of physics to study the Earth and its processes. Traditionally speaking, earth scientists whose work is oriented to ***the study of the Earth*** using gravity, magnetic, electrical, ***and seismic methods are considered geophysicists***. However, the term geophysicist can be extended to other scientists whose focus belong to fields such as atmospheric, oceanographic and ionospheric. Geophysicists usually carry out surveys and ***have an active role in the acquisition, processing and modelling of the data from the field.***²

As Detomo previously testified: “I consider myself an expert on seismic exploration, the conduct of seismic surveys, and the acquisition and processing of seismic data.” Ex. C, ¶28. These are all classic geophysicist roles. Indeed, Detomo’s accolades, memberships, and papers all relate to seismic and acquisition of data, not production methods, resource assessment, or oil recovery. *See* Ex. A, Apps. 2-3.

² <https://wiki.seg.org/wiki/Geophysicist> (last visited Mar. 16, 2023).

By contrast, the Society of Petroleum Engineers, of which Detomo is *not* a member, defines several “primary technical disciplines.” These disciplines include: (1) drilling (*e.g.*, well planning, pressure management); (2) completions (*e.g.*, completion fluids, well integrity); (3) production and operations (*e.g.*, well operations and optimization, well and reservoir surveillance, and well intervention); (4) project facilities and instruction (*e.g.*, processing systems and design, flow assurance, offshore facilities, and subsea systems); and (5) **reservoir (*e.g.*, reservoir and fluid characterization, improved and enhanced recovery, reservoir simulation, reserves evaluation)**.³ SPE deems these areas as the *primary* responsibility of a petroleum engineer and tests petroleum engineers on these technical disciplines for certification.⁴

Detomo’s testimony about managing various teams attempts to muddy the waters between disciplines and overinflates his expertise. The reservoir discipline bolded above is particularly relevant here. For example, if a geophysicist is managing a team and provided geophysical input for a subsurface model, she will nevertheless call upon a reservoir engineer to problem-solve well-design to enhance recovery or perform a reservoir resource assessment. Indeed, Detomo admitted engineers performed these tasks in each of his projects. Ex. B at 58:2-59:9; 60:18-61:4; 61:17-63:4; 64:19-65:25.

³ <https://www.spe.org/en/disciplines/discipline-coverage/> (last visited Mar. 16, 2023).

⁴ <https://www.spe.org/en/training/certification/> (last visited Mar. 16, 2023).

Detomo also specifically lacks expertise in Rose & Associates’ (“Rose”) MMRA,⁵ the toolset and risk assessment methodology Anadarko deployed during the Class Period. When deposed, Detomo did not know what MMRA stood for, how long the methodology has been taught or in practice, or its founding figures. *See* Ex. B at 34:25-35:7; *See also*, Ex. D (Merrill Affidavit). Detomo testified that to the extent he participated in risking and volumetric calculation during his career, it was using Shell’s proprietary methods. Ex. B at 46:15-47:8. His sole experience with Rose’s methodology was through *a single year* of participating as Shell’s representative at a consortium studying geophysical input in MMRA – at most, Detomo compared Shell’s economic runs with those generated by Rose’s method on a handful of projects. Ex. B at 38:10-39:10; Ex. D. Detomo never used Rose’s methodology to evaluate an active prospect like Shenandoah, and he never took an actual course in it. Ex. B at 38:10-39:4; 47:19-14. Detomo was also unaware Rose’s risk assessment methodology and software was widely used by nearly every major oil and gas company in the Class Period.⁶ *Id.* at 94:1-8.

Because Detomo is testifying outside the scope of his expertise as a geophysicist, and is not an expert in the methodology at issue, his opinions concerning Shenandoah’s commerciality must be excluded. *See Diamond*, 2013 WL 371648, at *13 (excluding proposed expert who “never actually performed the same type of analysis before”).

⁵ This software was called “MMRA” during the Class Period, but is now called “RoseRA.” *See* <https://www.roseassoc.com/software-oil-gas-prospect-play-portfolio/rose-risk-analysis-rosera/> (last visited Mar. 16, 2023).

⁶ Rose’s List of Clients, <https://www.roseassoc.com/about-us/rose-clients/> (last visited Mar. 16, 2023).

2. Detomo's Commercial Viability Opinion Is Not the Product of Reliable Principles or Methods

Detomo's opinions about Shenandoah's commercial viability are not the product of reliable principles or methods and are consequently riddled with errors.

Detomo testified he failed to conduct any independent resource, economic, or risk assessment to check the validity of his conclusions. Ex. B at 35:16-36:14; *Brown v. Ill. Cent. R.R. Co.*, 705 F.3d 531, 536 (5th Cir. 2013) ("an expert bears the burden of furnishing 'some objective, independent validation of [his] methodology'" (alteration in original); *Barrett v. PDP Unlimited, Inc.*, 2018 WL 11444038, at *4 (N.D. Miss. July 30, 2018) ("an expert relying on a calculation produced by a specific formula must do more than simply state the factors which went into his calculation"). This is problematic, given Detomo is not a petroleum engineer and his understanding of MMRA is limited. His opinions and testimony are demonstrably riddled with errors. See *Dart v. Kitchens Bros. Mfg. Co.*, 253 F. App'x 395, 399 (5th Cir. 2007) (affirming exclusion of expert testimony based on "basic mathematical errors and flaws in methodology"); *Burst v. Shell Oil Co.*, 104 F. Supp. 3d 773, 780-81 (E.D. La. 2015) (excluding expert's opinion because faulty calculation impacted reliability of expert's approach and degree of intellectual rigor). Detomo's disqualifying errors come from a fundamental misunderstanding of expected value, its use in the industry, and how Anadarko used it at Shenandoah to understand resource uncertainty.

First, Detomo stated multiple times the MMRA formula for expected value does not incorporate the full range of probabilities and costs. See Ex. B at 98:23-25 ("you've ignored the uncertainty in the range of the volumetrics and the uncertainty associated with the cost");

id. at 100:5-13 (“the expected value here only took into account one set of estimated costs and one estimated volume”); *id.* at 137:20-22 (“the risk and the volumes and of the economics are separate from all this, right”). This is wrong and demonstrates unfamiliarity with truncating resource distributions to determine commerciality, as well as the MMRA and Rose method. The error leads to other incorrect assumptions. For example, Detomo assumes Anadarko used a P50 value for its resource volume, when Anadarko consistently used the mean. The risked mean is based on calculating an expected value comprising a range of outcomes from appraisal failure to the upside P10 case. Anadarko’s summary tables consistently showed the risked mean, or expected value, as the primary economic outcome of the evaluation.⁷ This lack of understanding renders Detomo unqualified as an expert in this subject.

Second, Detomo’s expected value formula is wrong, resulting in significant errors when applied to Shen resources. Detomo testified that the “easy way to [calculate expected value] is to take a 10 percent probability of the 10 percent volume, a 90 percent probability of the 90 percent likelihood volume, which would be the P10, and the 50 percent probability of the 50 percent volume, multiply those together, add them all up and divide. And that would give you a crude estimate of expected value.” Ex. B at 91:22-92:3. He makes the same statement in his report. Ex. A, ¶228. But the correct equation is Swanson’s

⁷ See, e.g., Ex. E, APC-00027887 at 2 and 25 (April 2015 resource assessment); Ex. F, APC-00058253 at 9 (December 2015 resource assessment); Ex. G, APC-01166104 at 36 (January 2016 resource assessment).

Approximation for the Mean.⁸ This is basic knowledge an engineer versed in resource assessment and MMRA holds. A chart below demonstrates the differences between the Detomo's formula, Swanson's mean, and the MMRA formula, showing Detomo's has a high error rate.

Detomo's Equation for Expected Value Compared to Swanson's Mean, MMBOE						
				Mean Value Based on		
	P90	P50	P10	MMRA	Swanson's	Detomo's
Post Shen2 Expl	952	1183	1469	1197	1199.3	1595.0
				Error =	0.2%	33.2%
Post Shen3 Expl	781	910	1060	917	916.2	1263.8
				Error =	-0.1%	37.8%
Post Shen4 Expl	635	749	883	755	754.9	1034.2
				Error =	0.0%	37.0%
Extreme Flat Case	1.0000	1.0000	1.0000	1.0000	1.0	1.5
				Error =	0.0%	50.0%
Detomo's Equation for the Mean = $0.1 \cdot P10 + 0.5 \cdot P50 + 0.9 \cdot P90$						
Swanson's Approximation for the Mean = $.3 \cdot P10 + 0.4 \cdot P50 + 0.3 \cdot P90$						

Figure 1, Table Comparing Formulas Created By Lyndon Pittinger

This is significant, because Detomo's use of a formula with a 33%-37.8% error for sample mean values, and 50% error for the extreme flat case, disqualifies him as an expert and renders his testimony unreliable. *See* Ex. I (Pittinger Affidavit).

Given the foregoing, to the extent Detomo testified he's "not aware of [an expected value equation] ever having been done," and "very few people use [Rose's]" expected value for resource economics in the face of uncertainty, it is likely because he has little to no

⁸ *See* Ex. H (Hurst, A., G.C. Brown, and R.I. Swanson, 84 Swanson's 30-40-30 rule: American Association of Petroleum Geologists Bulletin, no. 12 at 1883-1891 (Dec. 2000)).

experience with it as a geophysicist. Ex. B at 92:23-93:3; 94:1-8. What he views as “button-pushing” is an area of expertise requiring a fundamental understanding that he lacks. *Id.* at 60:19-61:4.

Such errors risk misleading the jury about Anadarko’s resource assessments over time and, importantly, what costs were assumed. They disqualify Detomo.

D. Detomo Is Unqualified to Opine About Asphaltene Mitigation And Testimony Is Based on Insufficient Facts

Detomo’s opinion that asphaltene mitigation was “just something you have to plan for” and Anadarko did not view it as an “unmanageable issue” must be excluded. Ex. A, ¶¶75, 748, 850; Ex. B at 156:17-24. Detomo is not an expert on asphaltene mitigation, and his opinion lacks sufficient factual basis to be reliable.

Nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply ***too great an analytical gap between the data and the opinion proffered.***

Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997). “Unsubstantiated factual assertions will bar expert testimony, as will ‘altered facts and speculation designed to bolster [the proponent’s] position.’” *United States v. 38.307 Acres of Land, More or Less*, 2022 WL 522661, at *4 (S.D. Tex. Feb. 22, 2022). “[S]elective use of facts fails to satisfy the scientific method and *Daubert*.” *Cooper v. Meritor, Inc.*, 2019 WL 545159, at *4 (N.D. Miss. Feb. 11, 2019) (quoting *Barber v. United Airlines, Inc.*, 17 F. App’x 433, 437 (7th Cir. 2001)).

1. Detomo Is Unqualified to Opine on Asphaltene Mitigation

Detomo admitted he is not an expert in asphaltene deposition. Ex. B at 31:20-32:1; *In re FEMA Trailer Formaldehyde Prods. Liab. Litig.*, 2009 WL 2971783, at *1 (E.D. La. Sept. 11, 2009) (excluding opinion for which expert “candidly admit[ted]” lack of expertise). Again, Detomo is a geophysicist, not an engineer, and a geophysicist’s familiarity does not rise to the level of a petroleum engineer’s expertise in matters like flow assurance, well completion, or well interventions, which form the crux of asphaltene mitigation. *See supra* at 10. Detomo’s exposure to wells with asphaltene is also limited to a period when he was on a “multidisciplinary” risk assessment team and the pressures were much lower than Shenandoah. Ex. B at 62:7-64:9. At most, these wells reached pressures of 4,000 psi, relative to Shenandoah’s 20,000 psi. *See id.* at 62:7-64:9; 185:10-19. While Detomo may have been in the room “talking about [pressures] in these wells,” the engineers would have done the problem-solving around well interventions, completions, and flow assurance. *Id.* at 64:1-5. Detomo is not qualified to opine on asphaltene mitigation because he is not an engineer and has never been exposed to pressures like Shenandoah’s.

2. Detomo’s Opinions on Asphaltene Mitigation Are Based in Insufficient Fact and Risk Misleading the Jury

Detomo’s opinions on the ease of mitigating asphaltene in a 20,000 psi environment must also be excluded because they are based on insufficient facts.

Detomo’s downplaying of the risks that asphaltene onset pressures (“AOPs”) posed at Shenandoah contravenes the record. Detomo understated or confused the asphaltene pressures during his deposition, stating “[t]he individual reservoirs I believe were fairly low

... I'm thinking somewhere between 5,000 and 9,000 psi." Ex. B at 180:21-25. In reality, they were up to 13,500 psig in a single zone and up to 19,500 psig when blended, prompting a ConocoPhillips engineer to state "the AOPs were higher than anything we had seen before." See Ex. J (Nov. 29, 2022 Lyndon Pittinger's Corrected Expert Witness Report) ¶¶30, 263.

Detomo also dismisses ConocoPhillips' statements that it saw recovery reduced by as much as a third due to asphaltene, and Anadarko's concerns that the inability to produce multiple oil-producing zones in a single wellbore would drive up costs, resulting in abandonment and lower recovery factor over the entire reservoir. See Ex. K (Oct. 7, 2022 Lea Frye Deposition Transcript) at 55:1-58:22; 59:24-61:1; 62:4-6; 62:22-65:18. Detomo selectively quotes from Ms. Frye's deposition that asphaltene "was identified as one of the potential risk factors [that Anadarko] needed to understand better at the time with additional analysis of fluids," but shies away from her testimony that AOP levels impeded oil production design significantly impacting Shen's economics. See *id.* at 60:23-61:1; 63:20-65:15. Such selective factual review fails to satisfy the scientific method and *Daubert*. See *Cooper*, 2019 WL 545159, at *4 (quoting *Barber*, 17 F. App'x at 437).

Detomo's recitation of past successes and potential mitigation also belies the facts on the ground to the point of being unscientific. Detomo cites xylene soaks, chemical injections, coiled tubing clean-outs, and downhole interventions as potential remedies. Ex. A, ¶75. But Detomo does so in the abstract, not based on what was known during the Class Period. For example, Detomo testified "continuous chemical injection" was an easy remedy, but cites no evidence this was an option for Anadarko at the time. Indeed, he ignores that

Anadarko viewed “continuous inhibition” as a new and unproven strategy that would could only undergo a trial in 2017. Ex. B at 189:1-25; 198:6-17. Detomo even admitted Anadarko “had not done” continuous chemical injection at that time. *Id.* at 189:19-25. He speaks in the present tense about remedies, “chemical injection . . . *is* a proven technology,” which unhelpfully risks confusing the jury about what is available now versus during the Class Period. *Id.*

As for what was considered during the Class Period, the evidence Detomo ignores shows high costs, upwards of \$40-\$45 million per intervention, and limited mitigation options. *See id.* at 211:2-6. With respect to chemical injections, Detomo failed to consider Anadarko engineers’ statements that “downhole chemical injections . . . are only partially effective,” specifically only “20-30% effective,” and were considered “new and unproven” at the time. *Id.* at 198:6-22; Ex. L (Detomo Dep. Ex. 537) at APC_00111732. Similarly, coated tubing was not a mitigation candidate by 2016, and was considered still “in the proof-of-concept” during the Class Period. Ex. B at 208:10-210:1. During the exchange about chemical injection’s effectiveness, Detomo conflated chemical injections (referred to as dispersants) with xylene soaks, evidencing confusion about relevant terminology.⁹

Detomo does not grapple with evidence that Anadarko’s engineers had concluded xylene stimulations “are not a reliable method to mitigate asphaltene deposition near

⁹ “Asphaltene dispersants (ADs) are a class of chemical additives which can be used to control asphaltene deposition (Oschmann 2002). They have been successfully applied to inhibiting and removing asphaltene deposits as a formation squeeze, batch, *or continuous injection* (Manek 1995).” Firoozinia, H., et al., *A comprehensive experimental evaluation of asphaltene dispersants for injection under reservoir conditions*, Pet. Sci. 13, 280-291 (Mar. 1, 2016), <https://doi.org/10.1007/s12182-016-0078-5>.

wellbore.” *Id.* at 197:10-198:1. An article Detomo relied upon described potential “disastrous consequences,” including loss of productivity and complete shutdown, even with xylene soaks. *Id.* at 179:10-180:13.

For all his reliance on Anadarko’s “track record” managing asphaltenes, Detomo ignores how Anadarko’s engineers perceived that record during the Class Period. For example, Detomo cites “K2” field as a success story; but at the time, Anadarko’s engineers viewed it as a cautionary tale of well-failure due to asphaltene deposition. *Id.* at 191:12-192:19. Similarly, Detomo noted Chevron’s field, Typhoon, demonstrated coated tubing was a solution, but ignored that Anadarko’s engineers discussed its coated tubing as “not on the table,” and still in “proof-of-concept,” eventually eliminating coated tubing as a solution. *Id.* at 208:10-210:1. Detomo also failed to consider Anadarko’s had seen productivity gains lost after a mere 30 days. *Id.* at 187:21-188:4. This is not a track record of success.

Given the foregoing, Detomo not only lacks the requisite expertise, but fails to apply any methodology to the facts, or consider the facts at all. Testimony from an expert about mitigation strategies that were not feasible during the Class Period is unhelpful and misleading to the trier of fact. It must be excluded in its entirety.

VII. CONCLUSION

For all these reasons, Detomo's testimony should be excluded in whole or part.

DATED: March 16, 2023

Respectfully submitted,

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CERTIFICATION OF WORD COUNT

In accordance with Rule 18(c) of Your Honor's Court Procedures, I hereby certify that this document contains 4983 words, exclusive of the caption, the table of contents, the table of authorities, and the signature block.

DATED: March 16, 2023

s/ JOE KENDALL
JOE KENDALL

CERTIFICATE OF CONFERENCE

On March 15, 2023, Lead Counsel for Lead Plaintiff conferred telephonically with counsel for Defendants regarding the relief requested in this motion. Counsel for Defendants indicated that Defendants will oppose this motion.

DATED: March 16, 2023

s/ JOE KENDALL
JOE KENDALL

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing on all counsel of record who have appeared in this matter via the Court's CM/ECF system on this, the 16th day of March, 2023.

s/ JOE KENDALL
JOE KENDALL

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing on all counsel of record who have appeared
in this matter via the Court's CM/ECF system on this, the 6th day of April, 2023.

s/ Joe Kendall

JOE KENDALL